



Republic of South Sudan

Weekly Integrated Disease Surveillance and Response (IDSR) Epidemiological Bulletin

Reporting period: Epidemiological Week 32
05-11 August 2024

Background

This weekly bulletin presents the epidemiological status of priority diseases, conditions under surveillance, and public health events in South Sudan. The data presented in the bulletin come from various actors involved in preparedness and response to public health events in the country.

Highlights for the current reporting period

- In week 32 of 2024, the IDSR reporting timeliness and completeness were at 67% and 87% respectively, which has increase in Timeliness from 61% and 85% reported in the previous week.
- At the EWARN mobile sites, the Timeliness and Completeness of IDSR performance were at 80% and 100% respectively, while the private facilities reporting of Timeliness and Completeness in Juba and Wau stands at 59% and 92% respectively.
- In week 32, 225 alerts were triggered, and the proportion of verified alerts decreased from 68% (108/160) in week 31 to 66% (148/225) in week 32. Most of the alerts were for AWB (25%), Malaria (20%), Guinea Worm (18%), ARI (17%) and ABD (12%).
- Malaria constituted 31% of total consultations in week 32 of 2024, maintaining its status as the primary cause of morbidity in South Sudan.
- Updates on ongoing outbreaks in multiple counties (Anthrax, cVDPV2, Hepatitis E, Suspected MPox Measles and Yellow Fever).

Surveillance System Performance

The epidemic alert and response system in South Sudan currently relies mainly on immediate alert notification and weekly case data reporting through the Integrated Disease Surveillance and Response (IDSR) system. This system is complemented by a weekly Early Warning Alert and Response System (EWARS).

Completeness (proportion of all reports received regardless of time) and timeliness (proportion of reports received by the Wednesday following the end of the reporting period) of IDSR and EWARS are shown in Table 1 below. Timeliness and completeness for week 32 were at 67% and 87%, respectively.

Table 1: *Timeliness and completeness of IDSR reporting by State for week 32, 2024*

State	Total facilities	Number of facilities reported (Completeness)Wk32	Current Reporting Period				Cumulative since (2024)	
			Timeliness		Completeness		Timeliness	Completeness
			Week.32	Week. 31	Week.32	Week. 31		
Lakes	112	105	79%	58%	94%	100%	86%	99%
NBGZ	89	70	58%	60%	79%	87%	83%	92%
Unity	84	84	93%	5%	100%	100%	94%	100%
WBGZ	81	60	25%	15%	74%	70%	61%	75%
WES	191	191	90%	24%	100%	91%	85%	97%
Jonglei	120	102	82%	60%	85%	75%	82%	87%
Warrap	113	93	25%	32%	82%	86%	73%	89%
EES	112	76	37%	44%	68%	80%	81%	92%
RAA	19	10	53%	32%	53%	37%	48%	67%
CES	122	122	99%	3%	100%	100%	88%	95%
AAA	18	14	78%	67%	78%	72%	72%	80%
Upper Nile	143	119	55%	6%	83%	66%	60%	80%
GPA	15	15	100%	00%	100%	100%	100%	97%
Total	1219	1061	67%	51%	87%	85%	79%	90%

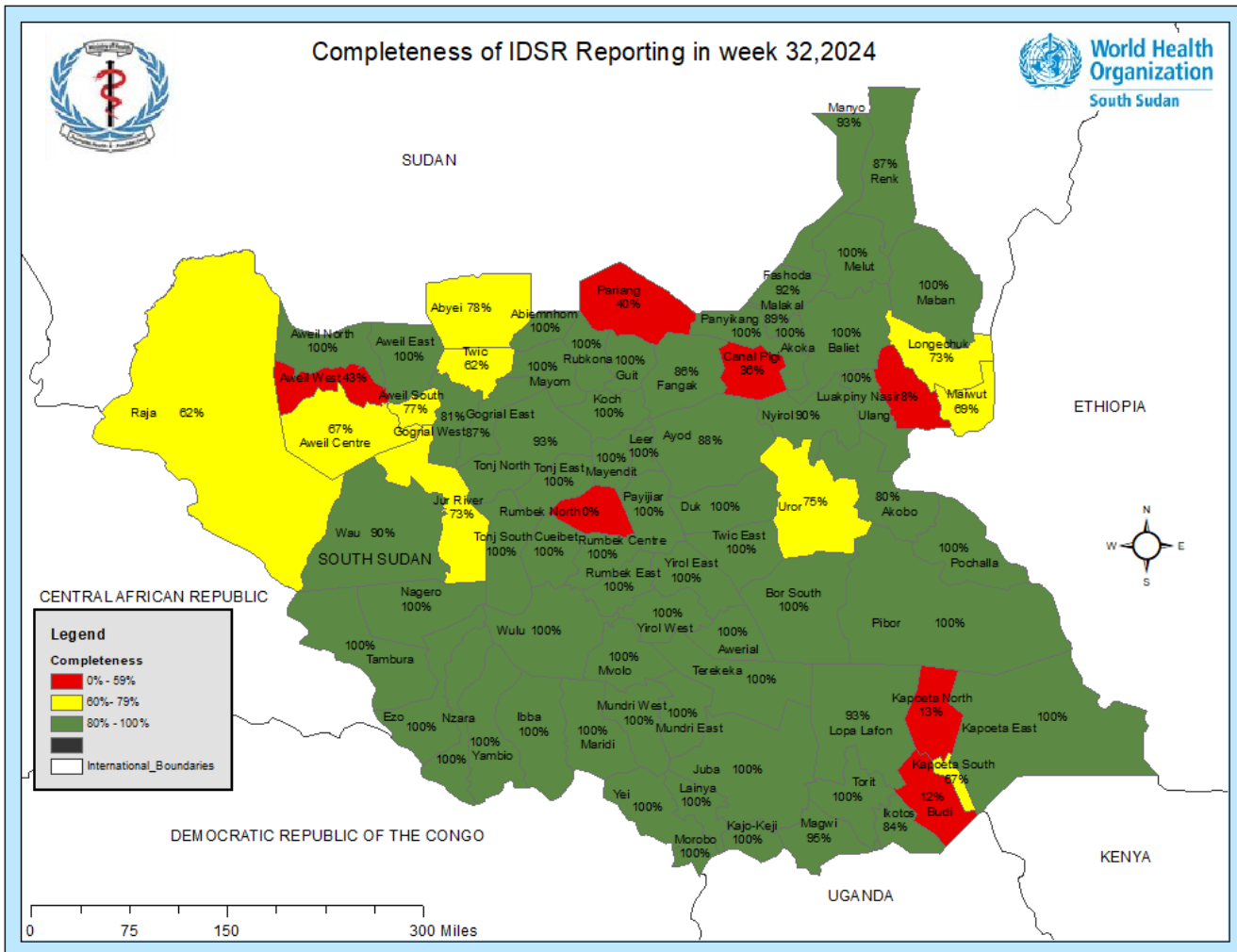
KEY:

>80%	Good performance
60-79%	Fair performance
<60%	Poor performance

Table 2: Timeliness and completeness of reporting by Payam and Partner of IDSR reporting from NGO-run mobile health facilities and private health facilities in Juba and Wau

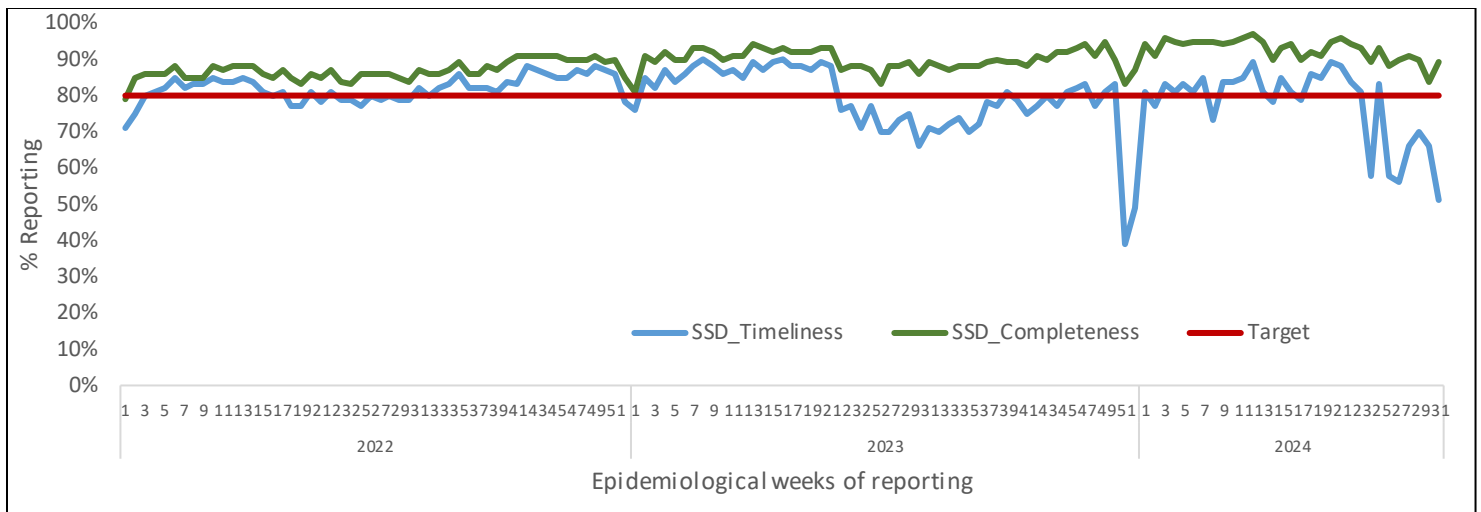
Admin area	# of Reporting Mobile Sites	% Of Timeliness in week 32	% of Completeness in week 32	Payam	# of Reporting Private Health Facilities	% of Timeliness in week 32	% of Completeness in week 32
SMC	1	100%	100%	Kator	3	100%	100%
SCI	2	50%	100%	Marial Baai	1	0%	100%
HFO	4	75%	100%	Northern Bari	1	100%	100%
WVI	2	100%	100%	Rajaf	3	100%	100%
CIDO	1	100%	100%	Muniki	12	100%	100%
TOTAL	10	80%	100%	Wau South	20	15%	95%
				Wau North	12	33%	67%
				Juba	10	100%	100%
				Managala	1	100%	100%
				TOTAL	63	59%	92%

Figure 1: Completeness of IDSR reporting by county for week 32, 2024



Given the consistent under-performance of timeliness of IDSR reporting, this week, we continued to analyze the performance over the past three years and documented that the declines in 2024 (Wk 21-32) are more pronounced than they were in year 2023. In this HSTP transition period, we shall continue to provide targeted support to the newly contracted health implementing partners for this surveillance performance indicator to recover.

Figure 2: Timeliness and Completeness of IDSR reporting in South Sudan; 2022-2024



Epidemic alerts

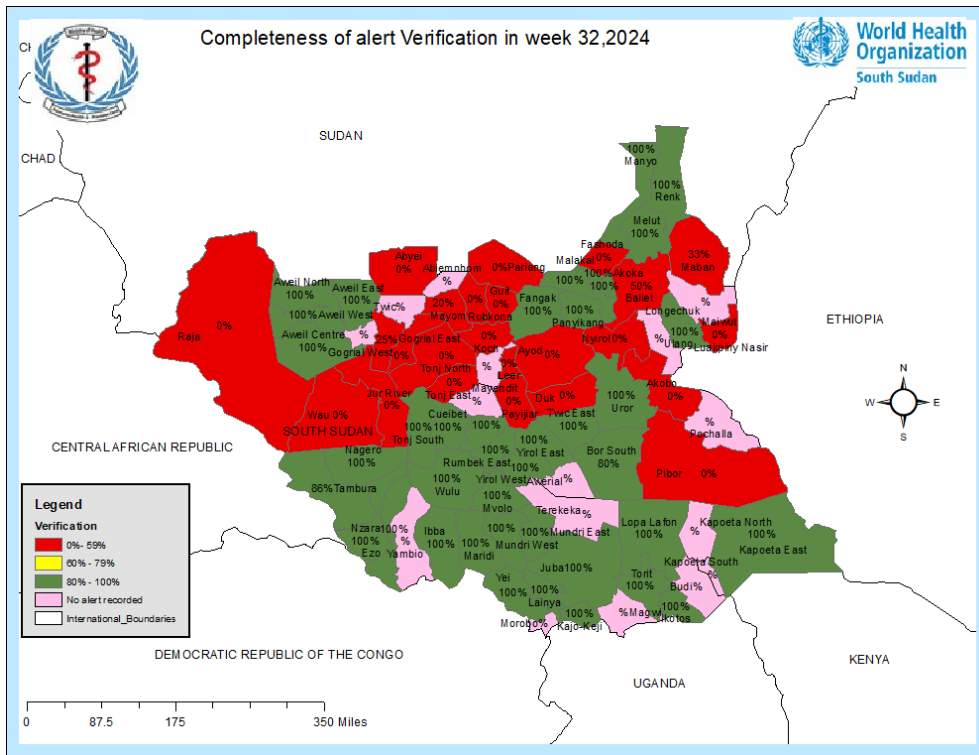
In Week 32, a total of 225 alerts have been triggered in the EWARS system, with 66% (148/225) verified in the system which is lower than the previous week 31. Most of the alerts were for AWB (25%), Malaria (20%), Guinea Worm (18%), ARI (17%) and ABD (12%). See Table 3 below for more details.

Table 3: Summary alerts triggered week 32, 2024

State/Admin	Acute Jaundice syndrome		Acute Respiratory Infections (ARI)		Acute Watery Diarrhoea		Bloody Diarrhoea		Cholera		EBS		Guinea Worm		Malaria (Confirmed)		Measles		Grand Total	
	# R	# V	# R	# V	# R	# V	# R	# V	# R	# V	# R	# V	# R	# V	# R	# V	# R	# V	# R	# V
AAA	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
CES	0	0	2	2	4	4	0	0	0	0	0	0	0	0	3	3	1	1	10	10
EES	0	0	0	0	6	6	4	4	0	0	0	0	0	0	2	2	0	0	12	12
GPAA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
Jonglei	0	0	4	3	8	8	2	0	2	1	3	3	2	0	4	4	1	1	26	20
Lakes	0	0	4	4	5	5	2	2	0	0	0	0	27	27	2	2	1	1	41	41
NBGZ	0	0	3	3	3	3	1	1	0	0	0	0	0	0	4	4	0	0	11	11
RAA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
Unity	2	0	10	0	6	0	6	0	0	0	2	0	0	0	9	0	0	0	35	0
Upper Nile	0	0	6	6	7	6	4	3	0	0	0	0	0	0	9	6	1	1	27	22
Warrap	0	0	1	0	4	1	2	1	1	0	0	0	7	2	3	0	0	0	18	4
WBGZ	0	0	3	0	3	0	2	0	0	0	0	0	3	0	1	0	1	0	13	0
WES	0	0	5	4	10	10	3	3	0	0	0	0	1	1	7	7	3	3	29	28
Grand Total	2	0	38	22	56	43	27	14	3	1	5	3	40	30	45	28	9	7	225	148

#R= reported #V= verified

Figure 2: Alerts Verification rates by county of South Sudan for week 32, 2024



Updates on Monkeypox Alerts Investigation

The Ministry of Health received an alert of suspected monkey pox (Mpx) in Aweil, Northern Bahr el Ghazel State on the 3rd August 2024. Similar alerts were also reported from Yambio, Western Equatoria State and Renk, Upper Nile State.

As of 22nd August 2024, a total of 24 suspected cases have been line-listed, 33 samples collected, 29 samples tested negative for mpxo using Real Time-Polymerase Chain Reaction (RT-PCR) at the Uganda Virus research Institute (UVRI). 4 samples are still pending laboratory testing results.

The locations that reported the 24 alerts with 33 samples collected include (Yambio: 02 Tambura: 11, Ezo: 01, Aweil Center: 02 Aweil East:01, Aweil North: 01, Malakal: 01 and Juba County: 14).

Influenza update

Currently, four (4) designated Influenza sentinel surveillance sites in the country, three (3) in Juba (Juba Teaching Hospital, Al Sabbah Children’s Hospital, Juba Military Hospital) and one (1) in Rumbek State Hospital in Lakes State are collecting epidemiological data and samples from ILI/SARI cases.

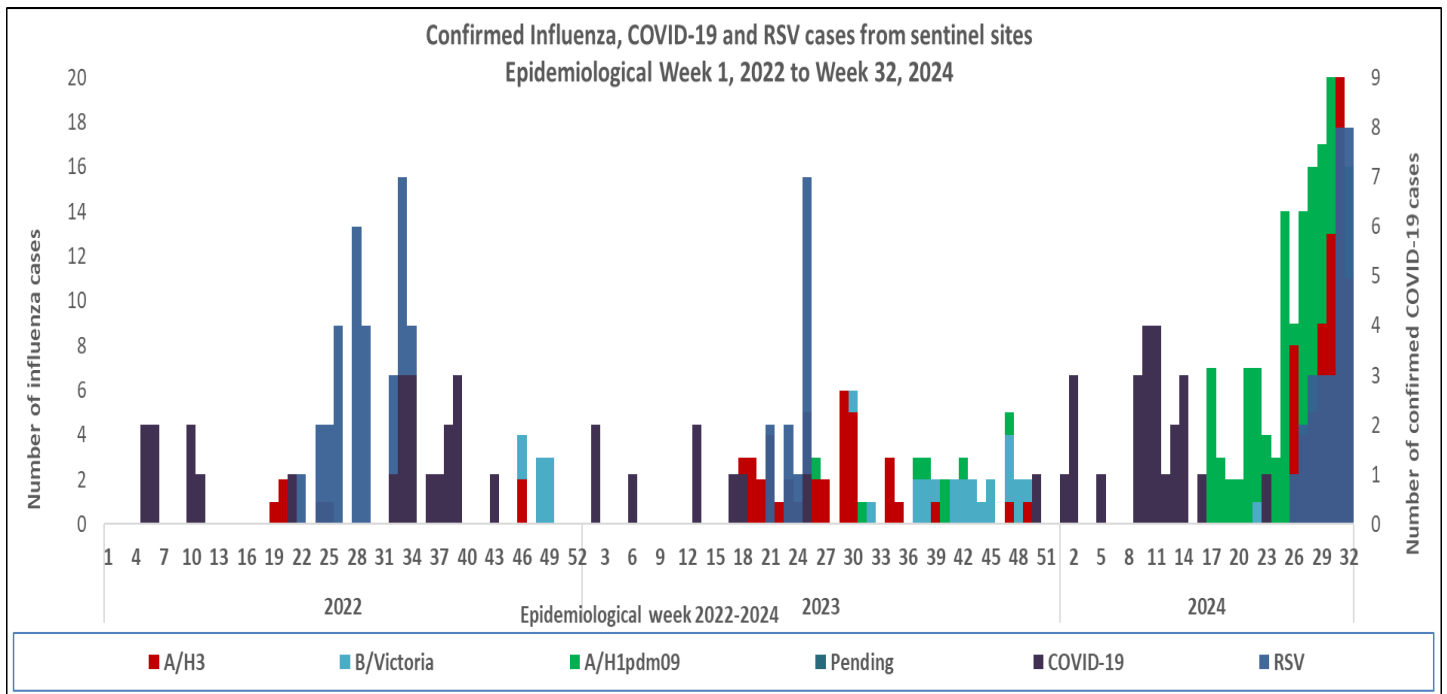


Figure 3: Confirmed Influenza, COVID-19, and RSV cases from sentinel sites Epidemiological Week 1, 2022 to Week 32, 2024

During Epidemiological Weeks 1 to 32 in 2024, a total of 1237 ILI/SARI samples have been collected; 1006 tested negative for all pathogens, (24) were positive for COVID-19, (71) for Influenza Type A (H3), (2) for Influenza Type B (Victoria), (87) for Influenza A/(H1N1)pdm09 and zero (28) for RSV.

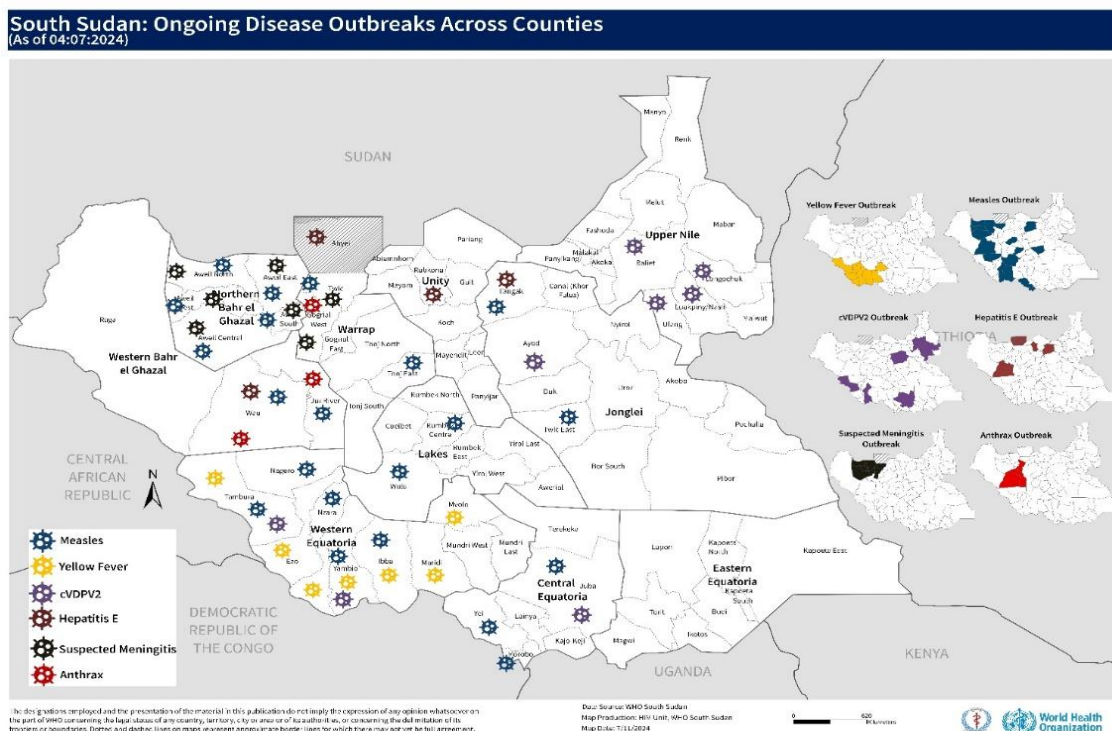
Ongoing epidemics

Table 4: Summary of ongoing and confirmed epidemics

Aetiologic agent	Location (county)	Date first reported	New cases since last bulletin	Cumulative cases to date	Response activities				
					Surveillance/Lab	Case management	Vaccination	Health promotion	IPC/WASH
<i>Ongoing outbreaks</i>									
Yellow Fever	Yambio, Nzara, Ezo, Tambura, Ibba and Maridi	21 Dec 2023	0	139	3 Laboratory confirmed	Ongoing	Done in 5 counties	Ongoing	Ongoing
Measles	Multiple counties	2022	0	14,507	1,154	ongoing	ongoing	ongoing	ongoing
Hepatitis E	Fangak	2023	0	655	253	ongoing	ongoing	ongoing	ongoing
cVDPV2	Yambio, Juba, Ulang, Nasir, Baliaet, Ayod	19/Dec 2023	0	10	20	Not applicable	Completed 2 SIAs and 3 rd round planning is ongoing	ongoing	ongoing
Hepatitis E	Rubkona (Bentiu IDP Camp)	Dec/2018	-	5770	-	ongoing	Done in 2021/22	ongoing	ongoing
Hepatitis E	Twic	Feb 2024	-	32	1	ongoing	Not done	ongoing	ongoing
Anthrax	Gogrial west (WRP) and Jur River (NBG)	2022	0	127	3	ongoing	Ongoing in animal sector	ongoing	ongoing
Hepatitis E	Abyei	June 2024	-	26	3	ongoing	no	yes	yes

Since 2022, South Sudan has experienced several emergencies throughout the country. Based on data from the states and the EWARS system, most counties have reported ongoing disease outbreaks. These outbreaks include measles, anthrax, meningitis, cholera, hepatitis E virus, and others. Measures have been put in place to help mitigate the spread of these outbreaks. Below is a map of the current ongoing emergencies.

Figure 4: Map showing ongoing disease outbreaks across the country



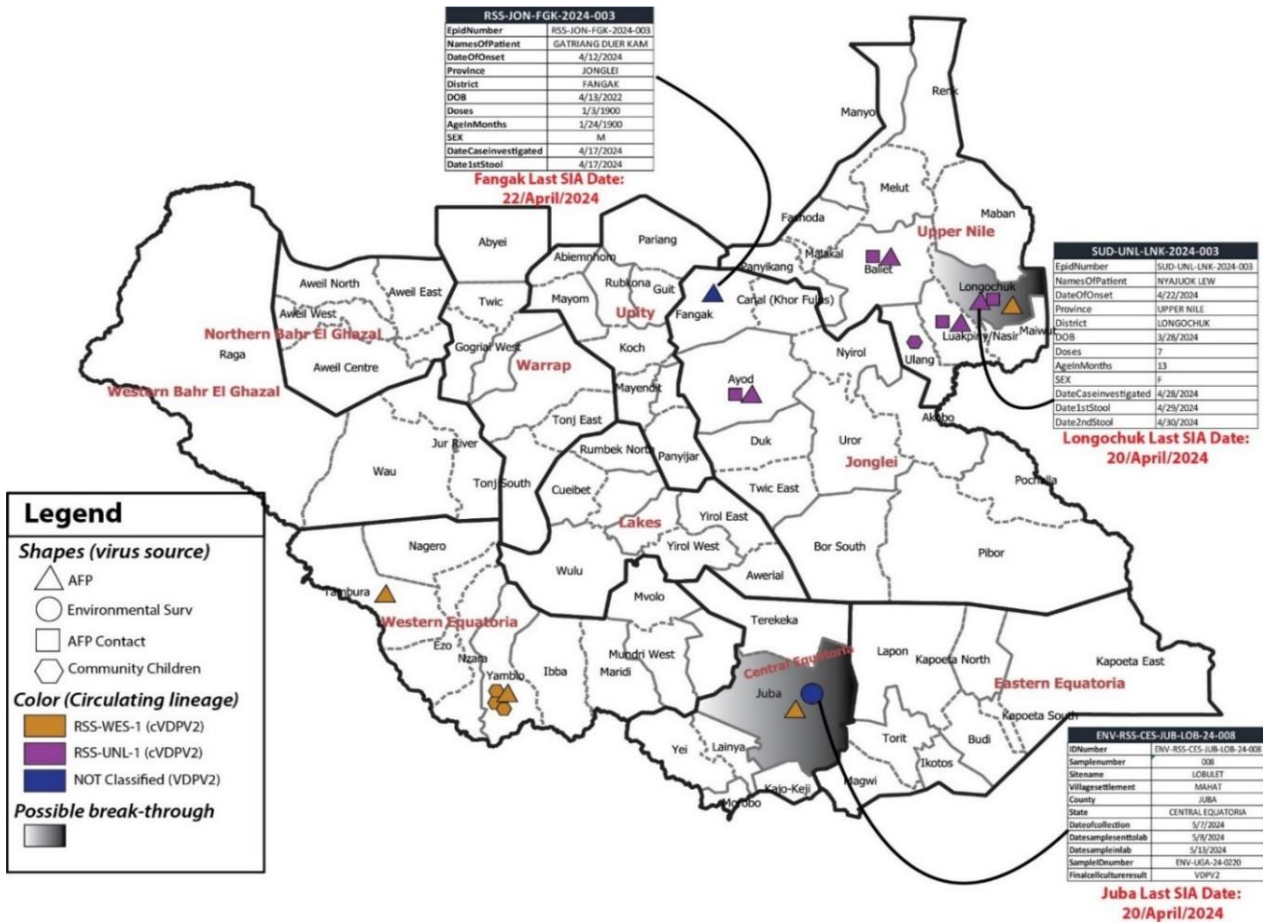
Response activities for ongoing/suspected outbreaks

Poliomyelitis

1. Circulating Vaccine Derived Polio Virus type-2 (cVDPV2)

The Ministry of Health declared the cVDPV2 as a public health emergency on December 22, 2023, following confirmation of PV2 Yambio. The total number of laboratory-confirmed cVDPV2 isolates from AFP cases is 10. Cases are reported from Yambio in Western Equatoria, Juba in Central Equatoria, Ayod in Jonglei, Baliet, Luakpiny/Nasir, and Longechuk in Upper Nile, and Tambura in Western Equatoria state. Four additional viruses were isolated from samples collected from healthy children sampled during outbreak investigation. Another three samples collected from contacts of AFP children also tested positive for the cVDPV2. In the last two months three cVDPV2 viruses were isolated from environmental samples collected from three environmental sites in Juba. The latest cVDPV2 virus isolates from an AFP case in Nasir County had a date of onset of 25th May 2024 and confirms breakthrough transmission.

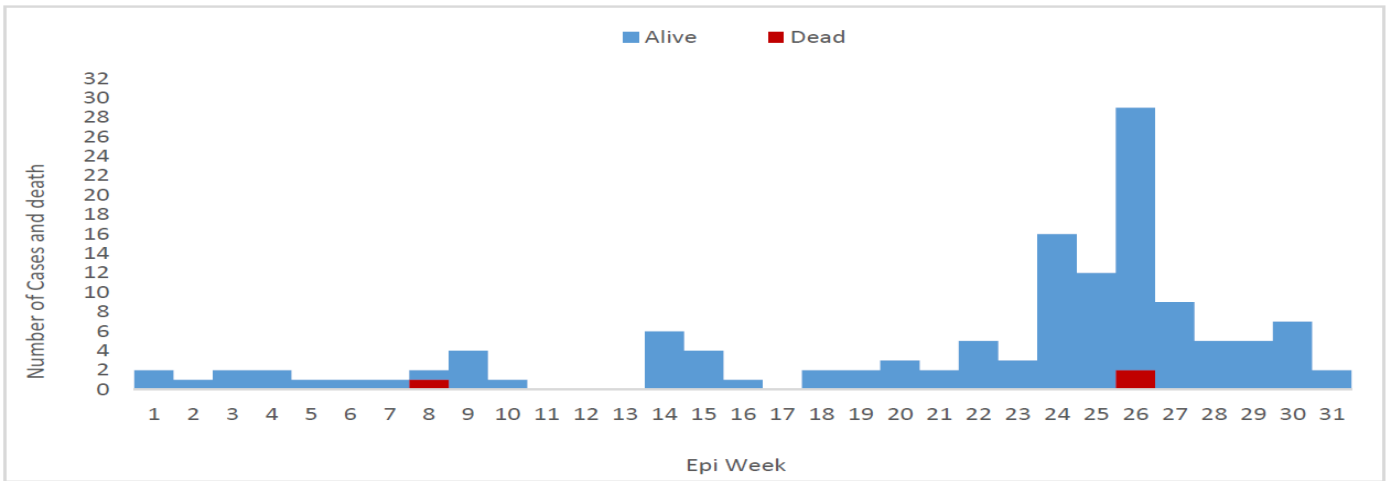
Figure 5: Distribution of cVDPV2 cases isolates (All sources)



2. Anthrax

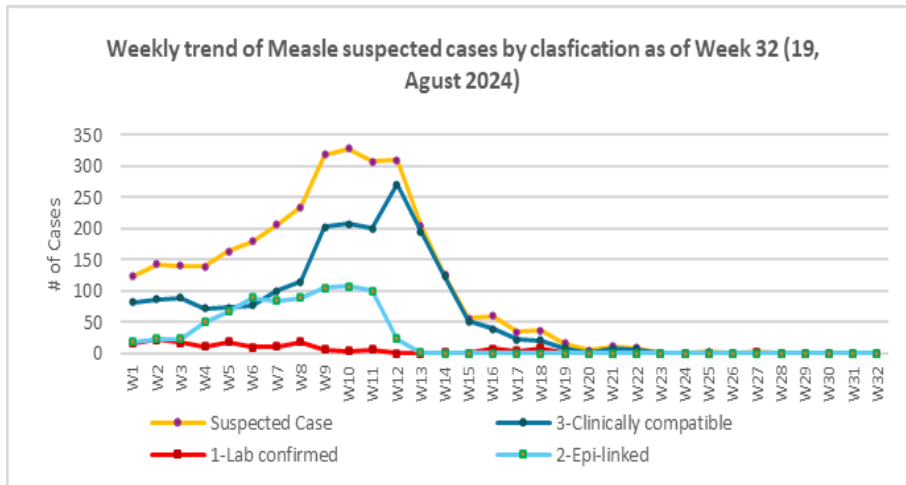
- During week32 of 2024, there were no reported cases of suspected anthrax. The cumulative number of cases stands at 133 human cases including three deaths (with case fatality rate of 2.3%) across four counties in two states since January 2024. Jur River in Western Bar-El Ghazal State has reported the highest recorded 77 cases (attack rate of 31.3 per 100,000 population), followed by Gogrial West County in Warrap State with an attack rate of 9.3 per 100,000 population. Wau in Western Bar-El Ghazal has an attack rate of 0.4 per 100,000 population, and Gogrial East in Warrap State has an attack rate of 0.5 per 100,000 population.
- Since 2024, a total of 356 animals have contracted the disease of which 189 have died representing case fatality rate of 53.1% in Animals.
- A total of 1,741 animals have been vaccinated across three Boma (Majok-Yienhliet, Malual-lukluk and Waar-Alel/Kuajok).
- The World Health Organization (WHO) has identified 17 health facilities. It has approved the shipment of 11 Interagency Emergency Health Kits (IEHK), containing supplementary medicines and various laboratory materials to the affected state. At the state level, One Health stakeholders are working on community-based waste management initiatives to mitigate the risk of Anthrax transmission.

Figure 6: Epi demiological Curve showing Cases and Death of Anthrax cases in South Sudan; (Week 1-32, 2024)



3. Measles

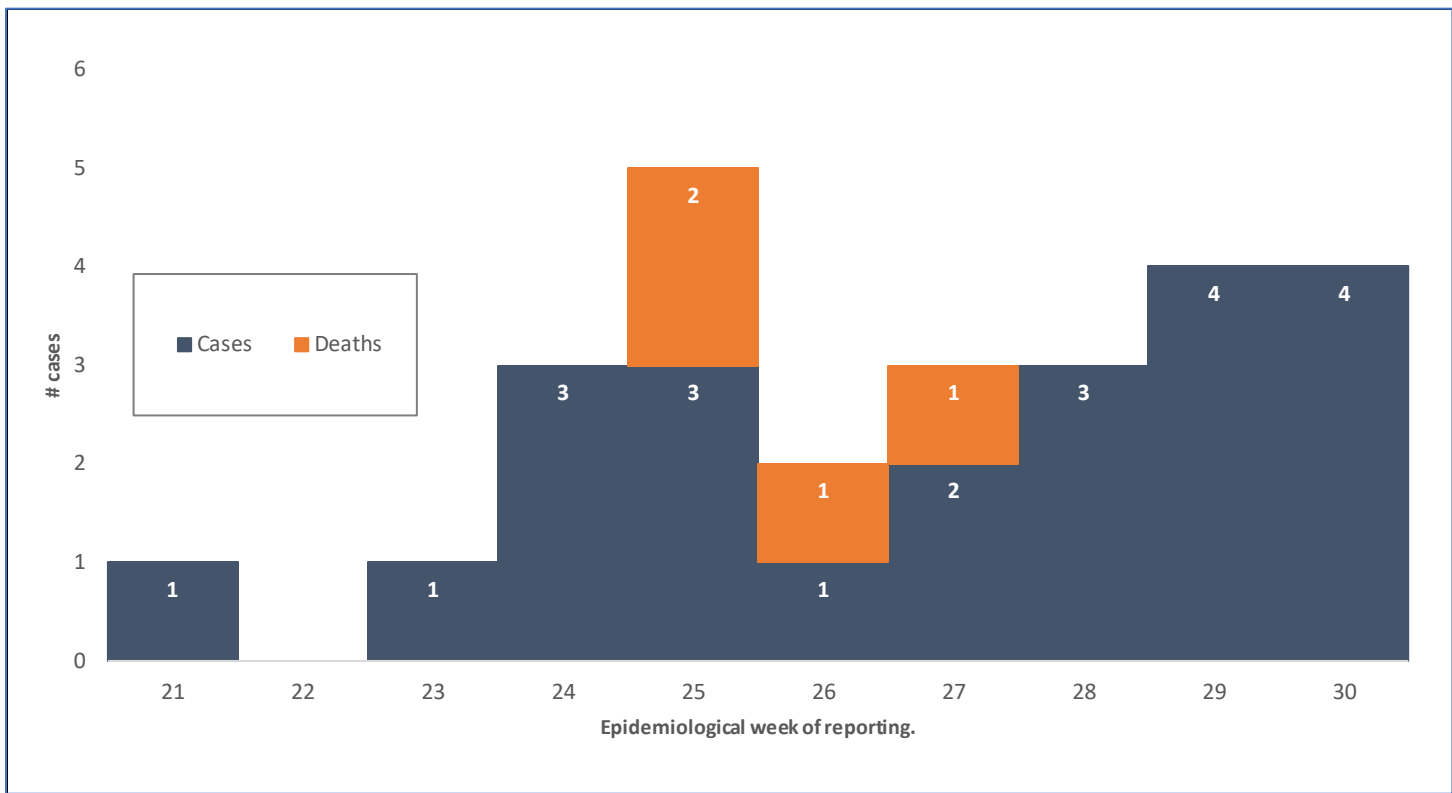
As of Epi week 32, 2024, 3,160 suspected measles cases were re - ported, 173 (5.5%) lab-confirmed, 41 reported measles deaths, and a case fatality rate of (1.3). The observed surge in suspected measles cases peaked in week 10 with a steady decline, and no confirmed cases have been reported since week 27. As at date, reactive vaccination efforts have led to county-wide measles outbreak response vaccination campaigns in 15 counties (Maridi, Mundri East, Tonj North, Tonj South, Aweil East, Aweil South, Aweil Center, Aweil North, Aweil West, Yambio, Nzara, Ibba, Tambura, Ezo and Rumbek Center) with 544,104 (93%) children vaccinated against measles virus, of which 2% are returnees. In turn, the epidemic curve of measles outbreak in South Sudan seems to indicate that the response interventions could have led to interruption of measles virus circulation.



4. Hepatitis E in Abyei

During week 32 of 2024, there were no reports of new suspected cases of Hepatitis E in Abyei. The cumulative number of cases remained 26 suspected Hepatitis E cases including (5) five deaths giving a case fatality rate of 19.2%. Three tested positive by PCR out of the 5 samples sent to the National Public Health Laboratory in Juba. Most of the cases came from different villages in Ameth agouth payam within Abyei. The most affected age group ranged from 18-35yrs with (77%). Females accounted for 35% and males 65% of all cases. MSF is currently supporting case management at the hospital in Agok.

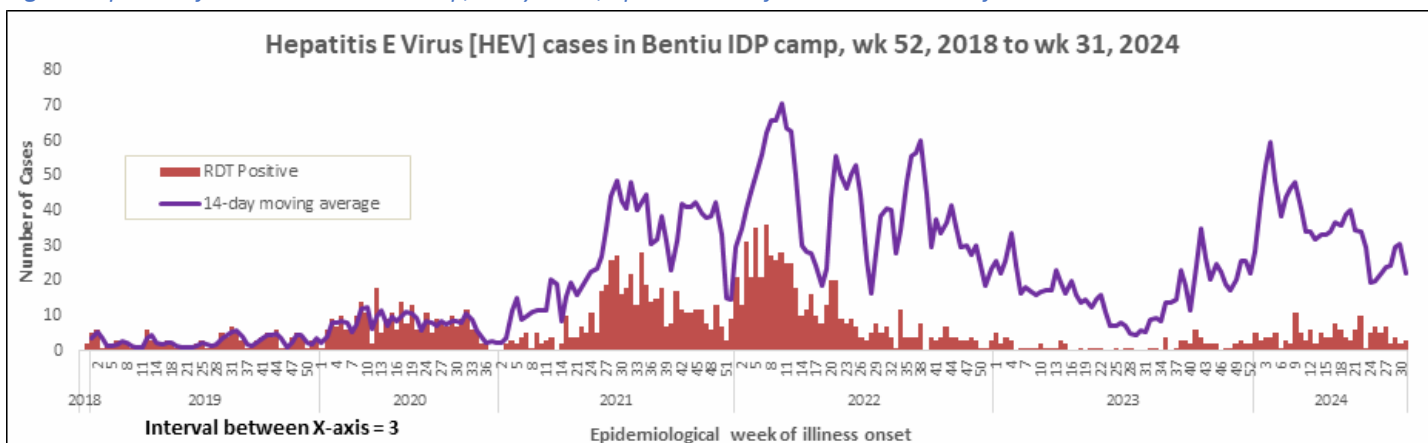
Figure 7: Epidemological curve showing HEV cases in Abyei Administrative area as of week 31, 2024.



5. Hepatitis E outbreak in Bentiu IDP Camp in Unity State

- During week 32 of 2024, there were no new reported cases and no deaths reported in Bentiu IDP.
- The epidemic curve (Figure 12) of Hepatitis E outbreak in Bentiu IDP camp indicates that circulation of this virus remains, albeit low grade.
- Since the outbreak began in 2018, a total of 5,770 cases have been recorded, resulting in 29 deaths.
- 43 of the cases are reported among patient aged 15 to 44 years old
- Males sex were the most affected account for 52% (3,018 cases) of the total cases, while females account 48% (2,752 cases).

Figure 8: Epicure of HEV in Bentiu IDP camp, Unity State; Epi Week 52 of 2018 to Week 31 of 2024



Other Events

Sudan crisis: As of Week32, at least **787,728** individuals have crossed from 18 different nationalities. Of this number, **75.95% (592,471)** are South Sudanese returnees and 23.36% are Sudanese refugees. Currently, 21 PoEs are being monitored, with Joda-Renk accounting for 68% of the reported influx figures. Hostcommunities and healthcare systems are struggling to cope with the increased demand for health and other Services, morbidity, and mortality among returnees and refugees. During week 32, there was a significant increase in the number of people seeking refuge in Renk Town from the conflict in Sinja, the capital of Sinnar State in Sudan, located east of Renk County.

Food insecurity in 2023, severe acute food insecurity impacted an estimated 7.7 million people across 78 counties in South Sudan. This includes 43,000 people facing catastrophe-level food insecurity at Integrated Food Security Phase Classification (IPC) Phase 5, 2.9 million at IPC Phase 4 (emergency-level), and 4.8 million at IPC Phase 3 (crisis-level). Among those affected are 1.4 million malnourished children. For 2024, it is estimated that millions of people will still be unable to meet minimum food needs as food stocks could be depleted by April 2024. Additionally, ongoing sporadic conflicts and the influx of returnees and refugees from Sudan is likely to strain food supplies and incomes further, driving severe malnutrition.

Flooding There is an expectation of extensive flooding to occur in South Sudan in 2024 due to two separate climatic events. The tail end of the 2023-24 El Niño event is leading to significantly above-average rainfall in Uganda, which increases the water level of the White Nile, leading to increased flood risks downstream in South Sudan. Additionally, the onset of the El Niño event in 2024 is projected to lead to approximately 50% higher levels of rainfall in the northern and eastern parts of South Sudan, which not only further exacerbates the flood risk along the White Nile and its tributaries but will also contribute to flooding in more distant regions, like those occurring during the triple-dip La Niña event of 2020-2023. Historical data indicates a peak in flooding around September.

As part of the preparedness plan, the MoH, WHO, and Health Cluster have developed the 2024 South Sudan Health Sector Flood contingency and response plan. The Health Cluster partners will support the Ministry of Health in implementing this plan, although a key limitation will be the availability of funds. The estimated budget needed for the response is USD 63 million.

Acknowledgments

Thanks to the State Surveillance Officers, Health Cluster partners for sharing the weekly IDSR data. To access the IDSR bulletins for 2024 use the link below:

<https://www.afro.who.int/countries/south-sudan/publication/south-sudan-weekly-integrated-disease-surveillance-and-response-bulletin-2024>

This bulletin is produced by the Ministry of Health with Technical support from WHO

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Notes

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The data has been collected with support from the EWARS project. This is an initiative to strengthen early warning, alert, and response in emergencies. It includes an online, desktop and mobile application that can be rapidly configured and deployed in the field. It is designed with frontline users in mind and built to work in difficult and remote

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operating environments. This bulletin has been automatically published from the EWARS application.

More information can be found at: <http://ewars-project.org>

Data source: DHIS-2 and EWARS

